CLAIMS:

1. A circuit (1) for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized in that the switching transformer (2) comprises a second control loop (80).

2. A circuit as claimed in claim 1, characterized in that the control loop (80) comprises a third inner control loop (81).

3. A circuit as claimed in claim 2, characterized in that the third inner control loop (81) comprises a computer circuit (83).

4. A circuit as claimed in claim 3, characterized in that the computer circuit (83) is controlled by a commutation signal.

5. A circuit as claimed in claim 2, characterized in that the third inner control loop (81) comprises a memory (85).

6. A circuit as claimed in claim 1, characterized in that the second control loop (80) comprises an integrating controller (82).

7. A circuit as claimed in claim 1, characterized in that the second control loop (80) comprises a measuring filter (5).

8. A measuring filter (5) for a circuit (1) for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27), characterized in that the measuring filter (5) comprises two sample-and-hold stages (53, 56).

9. A measuring filter (5) as claimed in claim 8, characterized in that the measuring filter (5) comprises an adder (61).

10. A measuring filter (5) as claimed in claim 8, characterized in that the measuring filter (5) is controlled by a clock signal (90).

11. A method for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized by the following method steps:

- values of at least one operational datum (125, 128, 131) of the lamp (3) varying with time are measured continuously or discontinuously,
- the measured operational data (125, 128, 131) is compared with calculated operational data,
- parameters necessary for calculation are adjusted,
- a duty factor of a supply current is selected in dependence on the adjusted parameters.

12. A method for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized by the following method steps:

- values of at least one operational datum (125, 128, 131) of the lamp (3) varying with time are measured continuously or discontinuously,
- the measured operational data (125, 128, 131) is compared with calculated operational data,
- parameters necessary for calculation are adjusted,
- a frequency of an alternating voltage or an alternating current is selected in dependence on the adjusted parameters.

13. A method for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized by the following method steps:

- values of at least one operational datum (125, 128, 131) of the lamp (3) varying with time are measured continuously or discontinuously,
- the measured operational data (125, 128, 131) is compared with calculated operational data,
- parameters necessary for calculation are adjusted,
- a valve of a supply current is selected in dependence on the adjusted parameters.

14. A method as claimed in any one of claims 11 to 13, characterized in that initially set parameters are parameters of a new lamp (3).

15. A method as claimed in any one of claims 11 to 14, characterized in that the parameters are storable in a memory (85).

16. A method as claimed in any one of claims 11 to 15, characterized in that in steady-state operation the parameters inside the memory (85) are exactly those of the connected lamp (3).

17. A circuit (1) for operation of a gas discharge lamp (3) with a switching transformer (2), which switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized in that the switching transformer (2) comprises an inner control loop (81).

18. A data and video projector having a circuit as claimed in any one of claims 1 to 7 or 17.

19. A data and video projector having a circuit for implementing a method as claimed in any one of claims 11 to 16.